**Postgraduate Certificate** Segmentation and Survey Processing Techniques



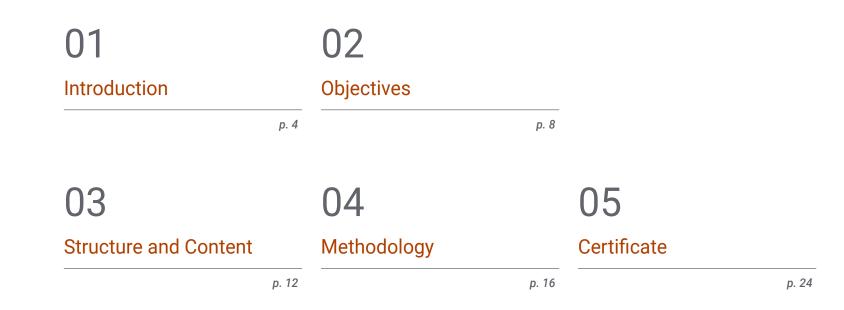


## **Postgraduate Certificate** Segmentation and Survey Processing Techniques

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/engineering/postgraduate-certificate/segmentation-survey-processing-techniques

# Índice



## 01 Introduction

Segmentation and survey techniques are essential for engineers because they enable them to obtain accurate and detailed information about their customers, users or potential markets. This data helps to understand the needs, preferences and behaviors of consumers, which facilitates the design of products and services that better meet their demands. For this reason, TECH has designed a program that allows students to maximize their knowledge of aspects such as Sample Surveys, Questionnaire Reliability or Segmentation Analysis, among others. All this, thanks to a 100% online format and with the most dynamic and practical multimedia materials available in the academic market.

Improve your skills on Segmentation and Survey Processing Techniques, thanks to the best online university in the world according to Forbes, thanks to TECH"

## tech 06 | Introduction

Segmentation and survey processing techniques are important to engineers because they enable them to perform accurate and reliable quantitative and qualitative analyses. With these techniques, it is possible to assess the responses of survey participants and perform a detailed analysis of the data collected, which facilitates the identification of patterns, trends and significant relationships between different variables, to provide valuable information for decision making and strategic planning.

For this reason, TECH has designed a Postgraduate Certificate in Segmentation and Survey Processing Techniques with which it seeks to provide students with the skills and competencies necessary to perform their work as specialists, with the highest possible efficiency and quality. Therefore, throughout this program, aspects such as Multidimensional Scaling, Shopping Cart Analysis, Automatic Interaction Detection Methods and the Chaid Algorithm will be addressed.

All this, thanks to a convenient 100% online format that allows students to organize their schedules and studies, combining them with their other day-to-day work and interests. In addition, this qualification has the most complete theoretical and practical materials on the market, which facilitates the student's study process and allows them to achieve their objectives quickly and accurately.

This **Postgraduate Certificate in Segmentation and Survey Processing Techniques** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by experts in Segmentation and Survey Processing Techniques
- The graphic, schematic and eminently practical contents with which it is conceived provide sporting and practical information on those disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



Become an expert in Multidimensional Scaling and Questionnaire Reliability in just a few weeks and with total freedom to organize your schedule and studies"

#### Introduction | 07 tech

Access all the content on Segmentation from your Tablet, cell phone or computer 24 hours a day"

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Address Discrete Choice Models and Multidimensional Preference, from the comfort of your home and at any time of the day.

Boost your profile in one of the areas with the greatest future in the field of Engineering, thanks to TECH, the largest digital university in the world.

# 02 **Objectives**

The final objective of this Postgraduate Certificate in Segmentation and Survey Processing Techniques is for the student to acquire advanced skills and knowledge in this area. An up-to-date that will allow the student to work with the highest possible quality and efficiency. All this, thanks to TECH and a 100% online format that gives total freedom of organization and schedules to the student.

Objectives | 09 tech

It delves into all the essential aspects of Sample Surveys in a 100% online modality that does not require travel or strict schedules"

## tech 10 | Objectives



### **General Objectives**

- Apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the development and defense of arguments and problem solving within their area of study
- Perform basic operations related to information debugging
- Use the appropriate sources of information for each type of applied study
- Describe the main sources of aggregate output growth of an economy in the long run
- Calculate and use elasticities and cost-of-living indexes





## Objectives | 11 tech



#### Specific Objectives

- Acquire the necessary resources and skills to obtain, process and interpret data in various fields of science and especially in those in which information is collected by means of surveys
- Learn to analyze qualitative data from surveys, univariate, bivariate and multivariate

Exceed your highest expectations, thanks to a dynamic program with the most complete theoretical and practical materials available in the academic market"

## 03 Structure and Content

All the contents and structure of this syllabus have been designed by the renowned professionals that conform TECH's team of experts in this area of Engineering. These specialists have used their extensive experience and their most advanced knowledge to create practical and completely up-to-date contents. All this based on the most efficient teaching methodology, Relearning of TECH Global University.

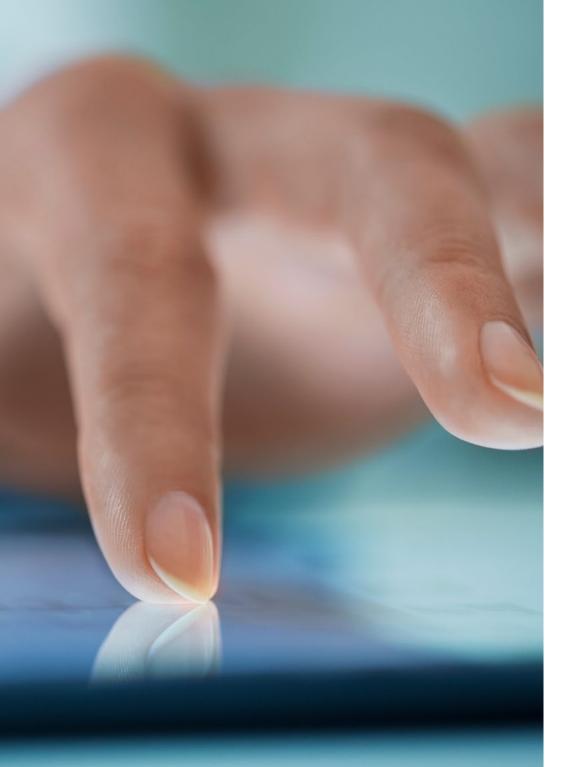
Expand your knowledge of Segmentation and Survey Processing Techniques, thanks to the most innovative teaching materials and a wide variety of additional content available on the Virtual Campus"

## tech 14 | Structure and Content

#### Module 1. Segmentation and Survey Processing Techniques

- 1.1. Sample Survey
  - 1.1.1. Objective of a Sample Survey. Most Common Data Collection Methods. Sources of Error in Surveys
  - 1.1.2. Sample Selection: Sampling and Size. Secondary Sources
  - 1.1.3. Official Surveys: National Institute of Statistics
  - 1.1.4. Some Official Surveys: National Health Survey, European Health Survey
- 1.2. Validity and Reliability of Questionnaires
  - 1.2.1. Factorial Validity
  - 1.2.2. Internal Consistency: Cronbach's Alpha
- 1.3. Statistical Analysis of Data from Two-Dimensional Contingency Tables
  - 1.3.1. Possible Analyses on a Two-Dimensional Contingency Table
  - 1.3.2. The Logic of Log-Linear Analysis: Decomposition of a Two-Dimensional Contingency Table Basic Elements of the Logarithmic-linear analysis. Effects and Parameters
  - 1.3.3. Calculation and Interpretation of Parameters
  - 1.3.4. Logarithmic-Linear Models for a 2-Way Table
  - 1.3.5. Hierarchical Models. Relationship Between Independence Hypotheses and Hierarchical Log-linear Models. Contrasts for the Significance of Parameters
  - 1.3.6. Contrasts for Significance of Effects. Contrasts for the Goodness-of-Fit of a Model
- 1.4. Study of a Contingency Table by Means of Correspondence Analysis
  - 1.4.1. Profiles and Chi-Square Distance
  - 1.4.2. Inertia Absorption
  - 1.4.3. Representation Quality
  - 1.4.4. Element Contribution to the Factor
  - 1.4.5. Contribution of the Factor to the Element. Principle of Distributional Equivalence
- 1.5. Segmentation Analysis: CHAID Algorithm
  - 1.5.1. Automatic Interaction Detection Methods
  - 1.5.2. CHAID Algorithm: Stages of the Process, Types of Predictors, Methods of Stopping the Algorithm
  - 1.5.3. Behavior of CHAID in the Presence of Simpson's Paradox

#### Structure and Content | 15 tech



- 1.6. Statistical Analysis of Data from Three-Dimensional Contingency Tables
  - 1.6.1. Concepts of Association and Interaction. Simpson's Paradox
  - 1.6.2. Components that Influence the Magnitude of Frequencies in a Three-Dimensional Contingency Table
    1.6.2.1. Complete Independence
    1.6.2.2. Multiple Independence and Conditional Independence
    1.6.2.3. Saturated Model for a Three-Way Table
  - 1.6.3. Log-Linear Hierarchical Linear Models for a Three-Way Table
     1.6.3.1. Degrees of Freedom of the Models
     1.6.3.2. Relationship Between Independence Hypotheses and Hierarchical Log-linear Models
  - 1.6.4. Evaluation of the Models. Significance Test for the Goodness-of-Fit of a Model. Significance Test of the Effects
- 1.7. Discrete Choice and Multidimensional Preference Models
  - 1.7.1. Discrete Choice Models
  - 1.7.2. Multidimensional Preference
- 1.8. Classification and Regression Trees and Random Forests
  - 1.8.1. Classification and Regression Trees
  - 1.8.2. Random Forests
- 1.9. Multidimensional scaling
  - 1.9.1. Introduction
  - 1.9.2. Distance and Similarity
  - 1.9.3. Classical Solution
  - 1.9.4. Similarities
- 1.10. Shopping Cart Analysis
  - 1.10.1. Shopping Cart Analysis
  - 1.10.2. Example of Applications

## 04 **Methodology**

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.** 

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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## Methodology | 17 tech

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

### tech 18 | Methodology

#### Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.



At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"



You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

## Methodology | 19 tech



The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

#### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

> Our program prepares you to face new challenges in uncertain environments and achieve success in your career"

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## tech 20 | Methodology

#### **Relearning Methodology**

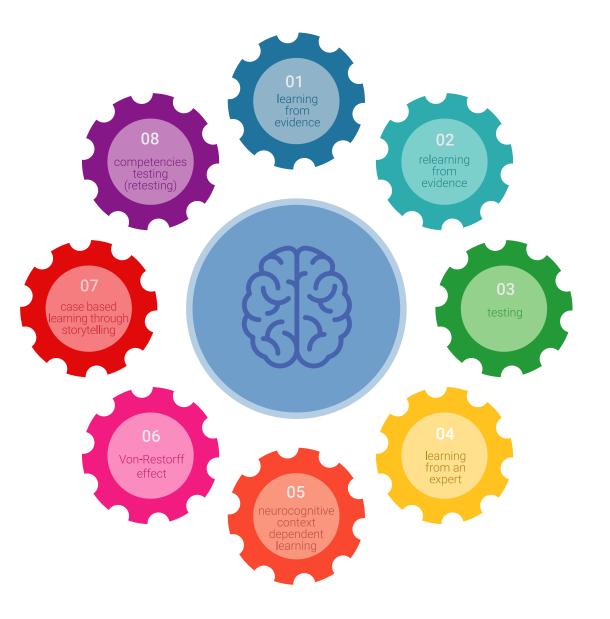
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



#### Methodology | 21 tech

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



## tech 22 | Methodology

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

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These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Practising Skills and Abilities**

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### **Additional Reading**

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

#### Methodology | 23 tech



#### **Case Studies**

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### **Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



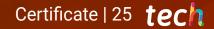
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## 05 **Certificate**

The Postgraduate Certificate in Segmentation and Survey Processing Techniques guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

### tech 26 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Segmentation and Survey Processing Techniques** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: Postgraduate Certificate in Segmentation and Survey Processing Techniques Modality: online Duration: 6 weeks Accreditation: 6 ECTS



tecn global university Postgraduate Certificate Segmentation and Survey Processing Techniques » Modality: online » Duration: 6 weeks » Certificate: TECH Global University » Credits: 6 ECTS » Schedule: at your own pace » Exams: online

**Postgraduate Certificate** Segmentation and Survey Processing Techniques

